

a capacitor formed between the gate of the second thin film transistor and said power supply line; and

DS
concl.
a circuit for driving said first thin film transistors, said circuit comprising third thin film transistors formed over said substrate.

REMARKS

Applicants wish to thank the Examiner for the very thorough consideration given the present application. The Examiner's Final Office Action of **March 14, 2001**, has been received and its contents carefully noted. Filed concurrently herewith is a Request for a *One (1) Month Extension of Time* that extends the shortened statutory period for response to **July 14, 2001**. Accordingly, Applicants respectfully submit that this response is timely filed.

Claims 11-32 were pending the present application prior to the above amendment. Due to the above actions, claims 11, 14, 17, 21, and 24 have been amended to recite protection to which Applicants are entitled. Applicants submit that no issue of new matter is raised by this amendment. Accordingly, claims 11-32 are still pending in this application and are believed to be in condition for allowance at least for the reasons stated below.

The Office Action rejects claims 11-32 under 35 USC §103(a) as unpatentable over the *Luo et al.* '854 patent in view of *Utsugi et al.* (U.S. Patent 5,670,792) and the *Fischer* '196 patent. This rejection is respectfully traversed at least for the following reasons and favorable consideration is kindly solicited in view thereof.

The claimed invention is directed an active matrix-type organic electroluminescence (EL) display device including, *inter alia*, at least first and second thin film transistors formed over a substrate, and an organic electroluminescent element formed over the substrate, and a circuit for driving the first thin film transistors

comprising third thin film transistors formed over the substrate. An advantageous feature of the claimed invention lies in the fact that each of the first, second and third thin film transistors are formed over the same substrate. Such a feature yields an increase in the integration density of the circuit.

It should be noted that three criteria must be met to establish a *prima facie* case of obviousness. *M.P.E.P.* §2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings to achieve the claimed invention. *Id.* Second, there must be a reasonable expectation of success. *In re Rhinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Third, the prior art must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Applicants respectfully submit that the Office Action has failed to set forth a *prima facie* case of obviousness based upon the applied references, and that the claimed invention is patentably distinct over the. In particular, Applicants respectfully submit that the proposed modification of the *Luo et al.* '854 patent in view of the respective *Utsugi et al.* '792 and *Fischer* '196 patents, alone or in any reasonable combination thereof, fails to expressly teach or inherently suggest every feature necessary to render obvious the claimed invention. For instance, the Office Action admits a deficiency in the *Luo et al.* '854-*Utsugi et al.* '792 combination in finding that "the device of Luo, as anticipated by Utsugi, fails to teach a circuit for driving said first TFTs comprising third TFTs which are column-selecting transistors." Consequently, the teachings of the *Fischer* '196 patent were relied upon to modify the *Luo et al.* '854-*Utsugi et al.* '792 combination since the *Fischer* '196 patent allegedly teaches a circuit of TFTs (*See*, Figs. 1 and 2, elements Q10-18, Q20-26, or both groups of TFTs) for driving first TFTs (*See*, Figs. 1 and 2, col. 1, lines 18-32, col. 3, lines 31-35).

Applicants respectfully traverses this finding. Specifically, while the *Fischer '196* patent appears to explicitly teach an addressing circuit including a matrix of MOSs or TFTs which correspond to respective light emitting diodes, there is a lack of expressed teaching or inherent suggestion that the video MOSs (i.e., Q20, Q22, Q24, etc.) are TFTs. Accordingly, merely teaches the use of MOSs, and not a circuit for driving a first thin film transistor, the circuit comprising third thin film transistors formed over a substrate, as recited at least in claims 11, 14, 17, 21 and 24 of the subject application. Consequently, there is a lack of teaching in the *Fischer '196* patent that would properly modify the *Luo et al. '854-Utsugi et al. '792* combination in a manner that would render the claimed invention obvious under §103. Accordingly, Applicants respectfully request in the next communication that the Examiner clarify his reasons for finding such a teaching in the *Fischer '196* patent or withdraw the pending the rejection.

Consequently, since it has been shown that the proposed *Luo et al. '854* modification fails to render the claimed invention obvious, Applicants respectfully request that the pending rejection of the pending claims be reconsidered and withdrawn in view thereof.

For all of the above reasons, it is respectively asserted that claims 11-32 are in proper condition for allowance. Reconsideration of these claims in view of the above comments is respectively requested. If the Examiner feels that any further discussions would be beneficial in this matter, it is requested that the undersigned be contacted.

Respectfully submitted,
NIXON PEABODY LLP

By: 

Eric J. Robinson
Registration No.: 38,285
8180 Greensboro Drive Suite #800
McLean, Virginia 22102
Telephone: 703/790-9110

EJR/TAV

Marked-up copy of amended claims.

11. (Amended) A display device comprising:

a substrate;

a plurality of light emissive elements arranged in a matrix form over said substrate;

a plurality of first thin film transistors formed over said substrate;

a plurality of second thin film transistors formed over said substrate and connected to said plurality of light emissive elements, respectively, wherein [said] one of said first thin film transistors is connected to a gate of one of said second thin film transistors; and

a circuit for driving said first thin film transistors, said circuit comprising third thin film transistors formed over said substrate,

wherein each of said light emissive elements comprises an organic electroluminescent material.

14. (Amended) An active matrix type organic luminescent display device comprising:

a substrate;

at least one first signal line and one second signal line formed over said substrate, said at least one first signal line and one second signal intersecting [to] each other [formed] over said substrate;

a first thin film transistor formed over said substrate, wherein said first signal line is connected to a gate of said first thin film transistor and said second signal line is connected to a source or drain of the first thin film transistor;

a second thin film transistor formed over said substrate wherein the other one of the source or drain of the first thin film transistor is connected to a gate of the second thin film transistor;

an organic electroluminescent element formed over said substrate and electrically connected to a source or drain of said second thin film transistor; [and]

a power supply line electrically connected to the other one of the source or drain of the second thin film transistor; and

a circuit for driving said first thin film transistor, said circuit comprising third thin film transistors formed over said substrate.

17. (Amended) An active matrix type organic luminescent display device comprising:

a substrate;

at least one first signal line and one second signal line formed over said substrate, said at least one first signal line and one second signal intersecting [to] each other [formed] over said substrate;

a first thin film transistor formed over said substrate, wherein said first signal line is connected to a gate of said first thin film transistor and said second signal line is connected to a source or drain of the first thin film transistor;

a second thin film transistor formed over said substrate, wherein the other one of the source or drain of the first thin film transistor is connected to a gate of the second thin film transistor;

an organic electroluminescent element formed over said substrate and electrically connected to a source or drain of said second thin film transistor;

a power supply line electrically connected to the other one of the source or drain of the second thin film transistor; [and]

a capacitor formed between the gate of the second thin film transistor and the source or drain of the second thin film transistor to which said power supply line is connected; and

a circuit for driving said first thin film transistor, said circuit comprising third thin film transistors formed over said substrate.

21. (Amended) An active matrix type organic luminescent display device comprising:

a substrate;

at least one first signal line and one second signal line formed over said substrate, said at least one first signal line and one second signal intersecting [to] each other [formed] over said substrate;

a first thin film transistor formed over said substrate, wherein said first signal line is connected to a gate of said first thin film transistor and said second signal line is connected to a source or drain of the first thin film transistor;

a second thin film transistor formed over said substrate, wherein the gate of said second thin film transistor is electrically connected to said second signal line through said first thin film transistor;

an organic electroluminescent element formed over said substrate; [and]

a power supply line electrically connected to said organic electroluminescent element through said second thin film transistor; and

a circuit for driving said first thin film transistors, said circuit comprising third thin film transistors formed over said substrate.

24. (Amended) An active matrix type organic luminescent display device comprising:

a substrate;

at least one first signal line and one second signal line formed over said substrate,
said at least one first signal line and one second signal intersecting [to] each other
[formed] over said substrate;

a first thin film transistor formed over said substrate, wherein said first signal line
is connected to a gate of said first thin film transistor;

a second thin film transistor formed over said substrate, wherein a gate of said
second thin film transistor is electrically connected to said second signal line through said
first thin film transistor;

an organic electroluminescent element formed over said substrate;

a power supply line formed over said substrate and electrically connected to said
organic electroluminescent element through said second thin film transistor;

a capacitor formed between the gate of the second thin film transistor and said
power supply line; and

a circuit for driving said first thin film transistors, said circuit comprising third thin
film transistors formed over said substrate.